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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/251,519 02/17/99 BATHICHE

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EXAMINER

WM02/0917

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ART UNIT

PAPER NUMBER

2675
DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/251,519

Applicant(s)

Bathiche et al.

Examiner

Srilakshmi Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 27, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 22, and 23 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20, 22, and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 16-20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al (US 6,069,594) in view of Beasley et al. (US 5,721,842) and further in view of Jacobs et al (US 5,059,958).

As to independent claim 1, Barnes et al disclose a method preparing a data packet indicative of operator manipulation of a hand held computer input device (Fig. 3a, col. 2, line 66-col. 3, line 27), comprising, receiving information indicative of a physical orientation of the computer input device (col. 2, line 66-col. 3, line 4; receiving information indicative of a configuration of a multiple-switch (Fig. 3a, item 36, col. 5, lines 49-51, col. 6, lines 30-31) device located on the computer input device and having at least two degrees of motional freedom (Fig. 6a-d, col. 9, lines 16-23). Beasley et al disclose placing data in an orientation field and a multiple switch field in the data packet in Col. 2, lines 66-Col. 3, line 7, Col. 5, lines 30-42 and Col. 6, lines 43-57. It would have been obvious to one of ordinary skill in the art to incorporate the data packet feature of Beasley et al into the system of Barnes et al. Beasley et al system teaches the data packet feature with respect to that of computer keyboard or mouse as shown in the abstract.

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The data packet feature is advantageous as it allows easy dispersement of information to several locations.

Beasley and Barnes fail to disclose wherein movement of the multiple switch device in the different degrees of motional freedom causes actuation of different switches in the multiple switch device. Jacobs et al disclose in col. 5, lines 12-31, 39-50, when the control box is tilted forward, rearward, right or left, the corresponding assigned mercury switch electrodes are shorted thus generating a respective output signal to the system being controlled. It would have been obvious to one of ordinary skill in the art that the system of Jacobs et al could have easily been incorporated into that of Barnes. This feature is advantageous as it provides faster reaction time, better operating reliability, lower production cost, and enhanced human factors as disclosed by Jacob et al in col. 2, lines 20-29.

As to independent claim 16, see claim 1, above.

As to independent claim 20, limitations of claims 1 and 13, above as taught by Barnes et al and further comprising a first housing portion (Fig. 3a, item 37), a first extending handle, coupled to and extending away from the first housing portion (shown in Fig. 3a, the extension to the left), a second extending handle (shown in Fig. 3a, the extension to the right).

As to independent claim 23, limitations of claim 1, and further comprising, receiving mode information, col. 8, lines 37-53, and controlling the display device such that an object being displayed on the visual display device assumes a visual orientation corresponding to one of, the physical orientation of the computer input device as indicated by the orientation information and

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the configuration of the multiple switch device as indicated by the switch information, based on selected mode as shown in col. 9, lines 16-60.

As to dependent claim 2, see claims 1 and 23, above.

As to dependent claim 3, limitations of claim 2, and further comprising, placing orientation indicative of the physical orientation of the computer input device in the orientation field when the selected mode is a first selected mode, and placing predetermined orientation data in the second selected mode, the predetermined orientation data corresponding to the configuration of the multiple switch device, col. 8, line 37-62.

As to dependent claim 4, limitations of claim 3, and further comprising, selecting a predetermined orientation value from a plurality of predetermined orientation values based on the configuration of the multiple switch device. Barnes et al disclose in col. 8, lines 37-62 where there are two different operational modes 2D and 6D. In col. 9, lines 16-60, Barnes et al disclose where there are predetermined orientation angles for the pitch, roll and yaw.

As to dependent claim 5, limitations of claim 3, and further comprising, placing predetermined switch configuration data in the multiple switch field when the selected mode is the second selected mode as shown in col. 5, lines 49-59.

As to dependent claim 6, limitations of claim 5, and further comprising, the predetermined switch configuration data corresponds to depression of no switches in the multiple switch device as Barnes et al disclose in col 9, lines 16-60, the values of the pitch, yaw and roll are determined from the device's viewpoint not by the depression of the switches.

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As to dependent claims 7, 8 and 9, limitations of claim 2, and further comprising, the step of placing the data in the orientation field and the multiple switch field in the data packet based on the selected mode is performed on the computer input device, or is performed on the computer, or performed on the computer by the input device. Barnes et al disclose in col. 2, line 66-col. 3, line 28 where input device is used in either 2-D or 3-D space and where device conveys positional and attitudinal or orientation information from the user to the computer, and the control circuitry which is connected to the transmitter and receiver determines a position and an angular orientation. The device communicates user input to the computer and further receives inputs from the user.

As to dependent claim 10, see claims 1 and 3, above.

As to dependent claim 11, limitations of claim 10, and further comprising, replacing the orientation information in the orientation field with a predetermined orientation value, when the selected mode is a second selected mode as shown in col. 8, lines 37-53. With the use of the 2D operating mode, there will be predetermined orientation values for the pitch, yaw and roll as they are not needed.

As to dependent claim 12, limitations of claim 11, and further comprising, placing the data in the orientation field and the multiple switch field in the data packet based on the selected mode is preformed on the computer by the input driver by replacing the switch information in the multiple switch field with a predetermined value when the selected mode is the second mode as shown in col. 6, lines 29-38.

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As to dependent claim 17, limitations of claim 16, and further comprising, a rotation field containing rotation information indicative of rotation of a rotatable member as shown in Figs. 6a-d and col. 9, lines 16-60.

As to dependent claim 18, see claim 15, above.

As to dependent claim 19, see claims 1, 3, 13 and 16, above.

As to dependent claim 22, see claim 3, above.

3. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al (US 6,069,594) in view of Beasley et al. (US 5,721,842).

As to independent claim 13, limitations of claim 1, and further comprising, receiving rotation information indicative of rotation of a rotatable member on the computer input device and placing data in a orientation field and a rotation field in the data packet based on the orientation information and the rotation information as shown in Fig. 6a-D.

As to dependent claim 14, see limitations of claims 1 and 13, above.

As to dependent claim 15, limitations of claim 14, and further comprising, receiving button information indicative of depression of a plurality of buttons on the computer device and placing data in a button field in the data packet based on the button information as shown in col. 6, lines 29-38.

Response to Arguments

4. Applicant's arguments filed June 27, 2001 with respect to independent claims 1, 16, 20 and 23 have been considered but are moot in view of the new ground(s) of rejection.

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5. Applicant's arguments filed June 27, 2001 have been fully considered but they are not persuasive.

With respect to claim 13, Barnes disclose in col. 3, lines 23-27, where the pointer device is in the form of a mouse device in one embodiment, and may include a plurality of keys. It would have been obvious to one of ordinary skill in the art that one of these keys could have easily be that of a rotating member such as a trackball.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Srilakshmi Kumar** whose telephone number is (703) 306-5575. The examiner can normally be reached on Mondays through Fridays from 8 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras, can be reached on (703) 305-9720. The fax number is (703) 308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Any response to this final action should be mailed to:

Box AF

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Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

September 9, 2001



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600